

# 0.500" PLATE 139

Slab Anneal: 1050 Plate Anneal: 950

Grain Size: 6.7

Increment 0.025"

Increment	(111)	(100)	ln(ratio)
1	1.257	1.908	-0.42
2	0.703	1.456	-0.73
3	1.127	1.11	0.02
4	1.554	1.543	0.01
5	0.279	1.146	-1.41
6	1.159	1.774	-0.43
7	1.481	1.335	0.10
8	3.27	1.086	1.10
9	0.996	1.072	-0.07
10	2.337	1.634	0.36
11	4.81	1.011	1.56
12	3.321	2.885	0.14
13	2.294	2.73	-0.17
14	1.477	1.329	0.11
15	0.607	1.229	-0.71
16	1.02	0.281	1.29
17	1.536	0.634	0.88
18	1.771	4.277	-0.88
19	1.057	1.921	-0.60
20	0.097	1.051	-2.38

139 Texture Gradient

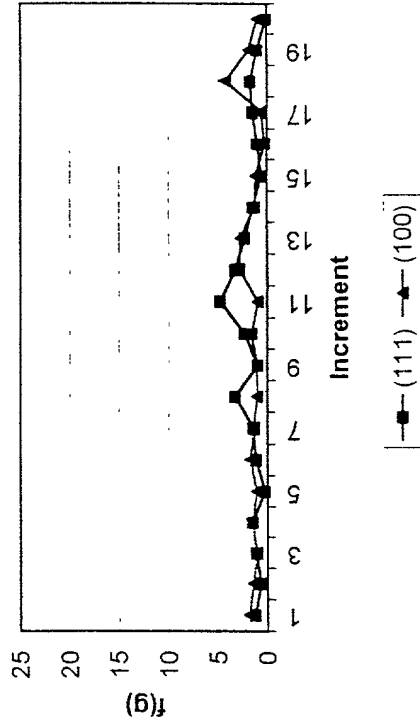


Fig. 1A

139 (111):(100) Ratio Gradient

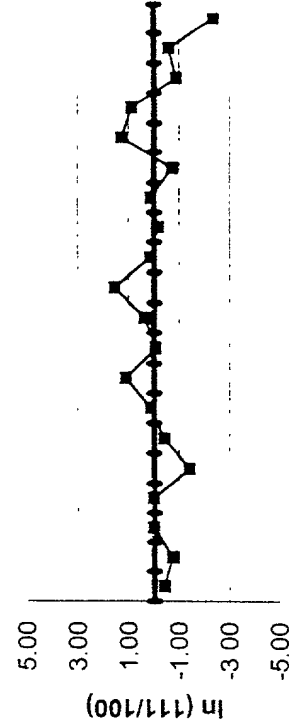


Fig. 1B

0.500" PLATE 142  
 Slab Anneal: 1050 Plate Anneal: 1000  
 Grain Size: 6.5  
 Increment: 0.025"

Increment	(111)	(100)	ln(ratio)
1	3.502	3.495	0.00
2	0.848	2.988	-1.26
3	0.412	3.998	-2.27
4	0.304	0.676	-0.80
5	0.52	0.717	-0.32
6	1.167	1.401	-0.18
7	1.493	1.691	-0.12
8	2.071	1.445	0.36
9	2.039	1.77	0.14
10	2.19	1.643	0.29
11	1.541	0.327	1.55
12	6.722	0.091	4.30
13	4.228	0.131	3.47
14	1.904	1.455	0.27
15	1.514	2.136	-0.34
16	1.366	1.26	0.08
17	1.388	0.904	0.43
18	0.709	1.504	-0.75
19	0.615	0.395	0.44
20	1.027	0.499	0.72

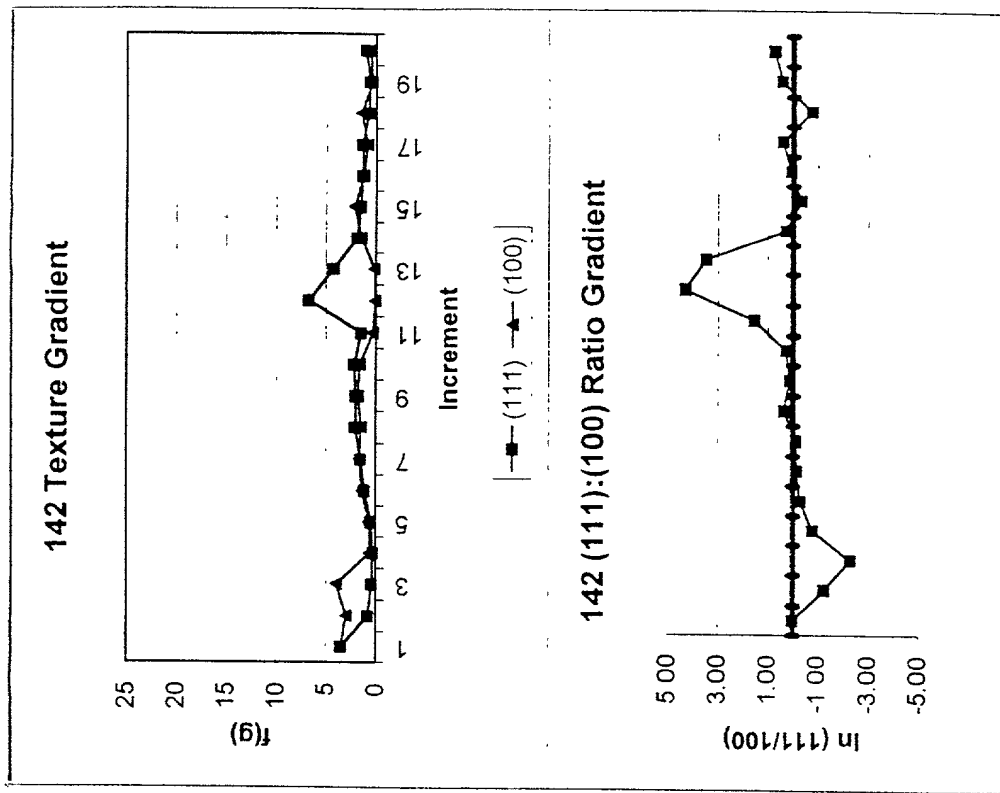


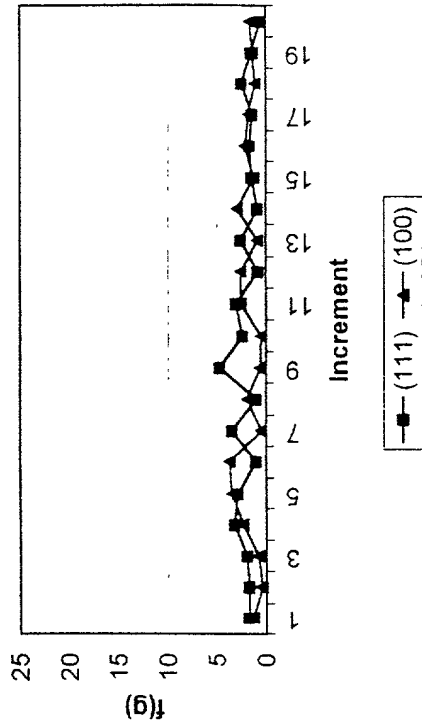
Fig. 2A

Fig. 2B

0.500" PLATE 140  
 Slab Anneal: 1150 Plate Anneal: 1000  
 Grain Size: 6.5  
 Increment 0.025"

Increment	(111)	(100)	ln(ratio)
1	1.786	1.286	0.33
2	1.745	0.433	1.39
3	1.948	0.782	0.91
4	3.232	2.3	0.34
5	2.892	3.517	-0.20
6	1.061	3.701	-1.25
7	3.501	0.522	1.90
8	1.026	1.944	-0.64
9	4.783	0.608	2.06
10	2.402	0.535	1.50
11	3.097	2.547	0.20
12	0.859	2.571	-1.10
13	2.585	0.897	1.06
14	0.872	2.955	-1.22
15	1.439	1.28	0.12
16	1.657	2.131	-0.25
17	1.395	1.765	-0.24
18	2.506	1.105	0.82
19	1.541	1.381	0.11
20	0.593	1.696	-1.05

140 Texture Gradient



140 (111):(100) Ratio Gradient

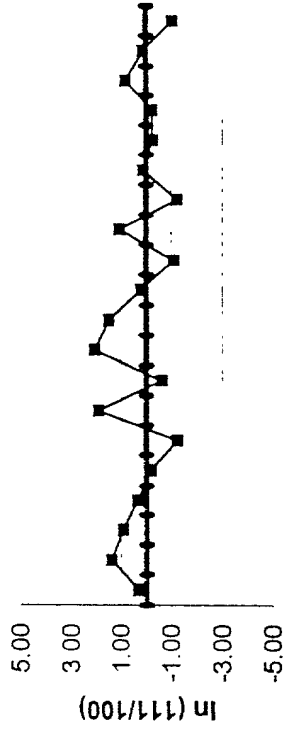


Fig. 3A

Fig. 3B

0.500" PLATE 141  
 Slab Anneal: 1300 Plate Anneal: 1000  
 Grain Size: 6.5  
 Increment: 0.025"

Increment	(111)	(100)	ln(ratio)
1	1.577	3.039	-0.66
2	1.125	1.032	0.09
3	1.007	1.824	-0.59
4	2.001	0.698	1.05
5	2.091	2.748	-0.27
6	4.892	1.906	0.94
7	0.886	4.336	-1.59
8	6.052	0.882	1.93
9	3.392	0.317	2.37
10	2.177	1.376	0.46
11	3.431	2.973	0.14
12	3.628	1.589	0.83
13	3.458	0.637	1.69
14	2.095	1.368	0.43
15	1.869	1.023	0.60
16	1.371	2.226	-0.48
17	2.032	1.143	0.58
18	1.949	1.754	0.11
19	2.175	3.521	-0.48
20	5.092	2.802	0.60

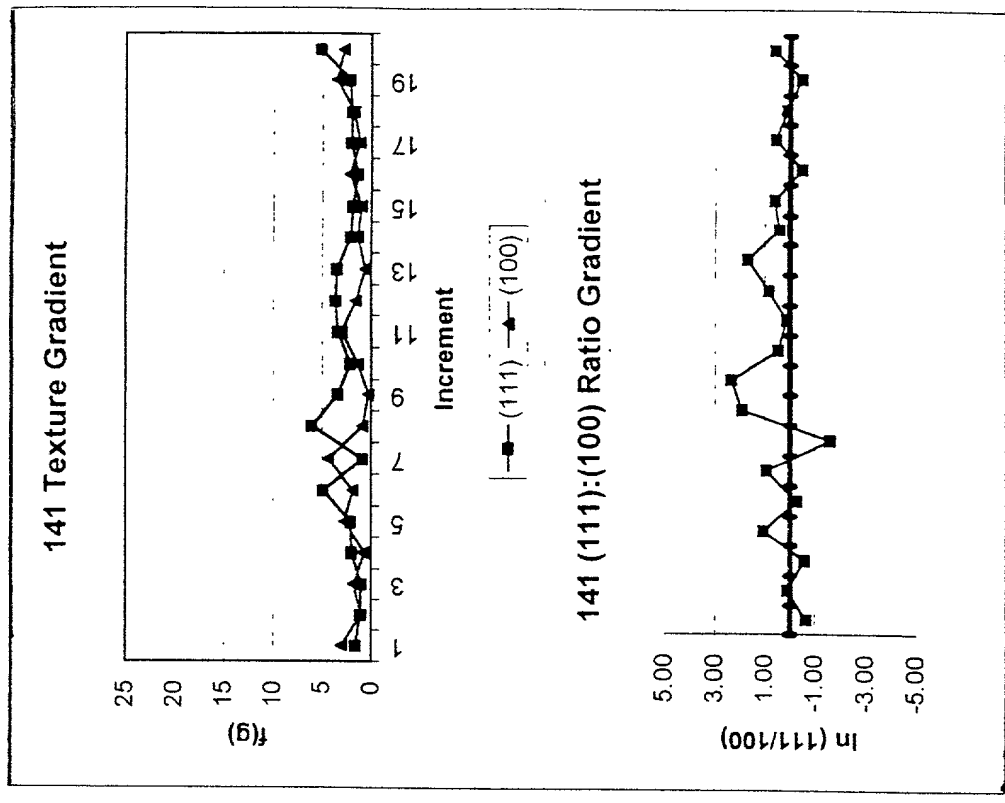


Fig. 4A

Fig. 4B

# 0.250" PLATE 125D

Slab Anneal 1050 Plate Anneal: 1000

Grain Size: 6.5

Increment: 0.0125"

Increment	(111)	(100)	ln(ratio)
1	2.241	4.137	-0.61
2	1.411	4.259	-1.10
3	0.823	3.941	-1.57
4	0.82	7.79	-2.25
5	1.734	4.658	-0.99
6	2.812	7.527	-0.98
7	5.245	4.266	0.21
8	6.196	2.283	1.00
9	8.892	1.248	1.96
10	8.531	1.082	2.06
11	5.261	1.857	1.04
12	1.439	1.097	0.27
13	2.445	2.493	-0.02
14	2.057	5.962	-1.06
15	1.173	2.213	-0.63
16	1.767	2.609	-0.39
17	0.55	4.066	-2.00
18	2.921	4.855	-0.51
19	4.431	3.684	0.18
20	6.313	1.898	1.20

## 125D Texture Gradient

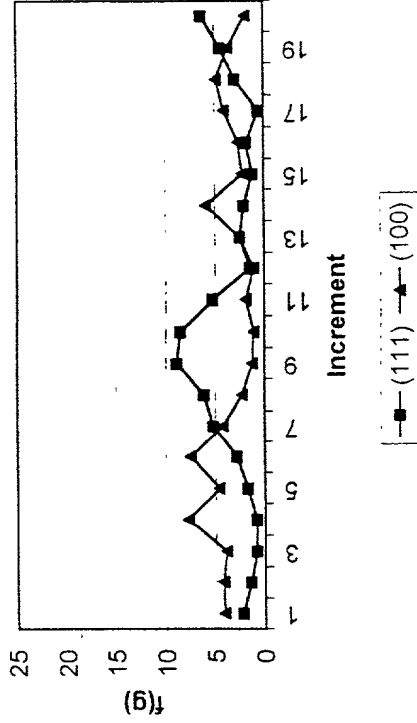


Fig. 5A

## 125D (111):(100) Ratio Gradient

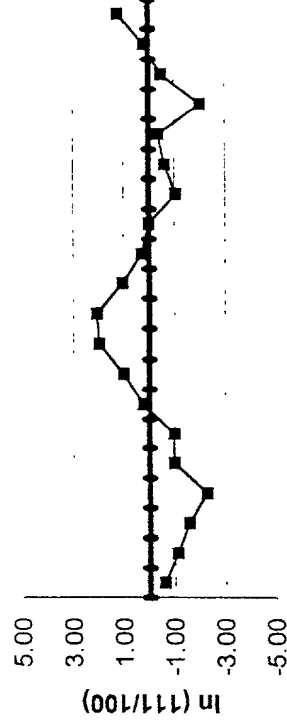


Fig. 5B

# 0.250" PLATE 125B

Slab Anneal: 1150 Plate Anneal: 1000

Grain Size: 6.5

Increment 0.0125"

Increment	(111)	(100)	ln(ratio)
1	4.159	2.577	0.48
2	6.06	0.27	3.11
3	4.407	0.964	1.52
4	2.336	1.175	0.69
5	2.023	2.155	-0.08
6	3.733	2.091	0.58
7	4.117	2.131	0.66
8	4.718	2.721	0.55
9	5.367	2.604	0.72
10	2.876	5.519	-0.65
11	4.952	2.886	0.54
12	4.12	3.362	0.20
13	2.752	1.715	0.47
14	0.949	4.93	-1.65
15	1.108	4.827	-1.47
16	1	3.157	-1.15
17	2.357	6.294	-0.98
18	0.846	10.654	-2.53
19	1.628	5.369	-1.19
20	0.866	4.458	-1.64

## 125B Texture Gradient

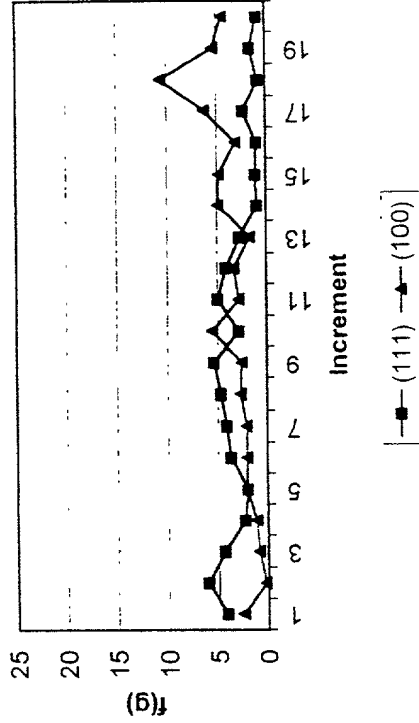


Fig. 6A

## 125B (111):(100) Ratio Gradient

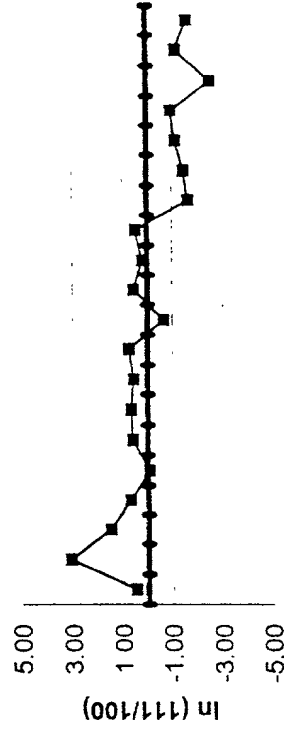


Fig. 6B

0.250" PLATE 125C  
 Slab Anneal: 1300 Plate Anneal: 1000  
 Grain Size: 6.5  
 Increment: 0.0125"

Increment	(111)	(100)	ln(ratio)
1	2.154	1.516	0.35
2	1.174	1.282	-0.09
3	0.79	5.846	-2.00
4	0.981	2.736	-1.03
5	1.938	3.55	-0.61
6	2.302	3.179	-0.32
7	5.221	1.661	1.15
8	3.636	2.6	0.34
9	2.982	1.083	1.01
10	6.161	0.322	2.95
11	7.636	0.623	2.51
12	7.336	0.46	2.77
13	4.415	6.945	-0.45
14	2.37	1.953	0.19
15	2.516	3.636	-0.37
16	1.99	1.976	0.01
17	2.696	0.769	1.25
18	3.155	5.257	-0.51
19	4.558	0.879	1.65
20	1.788	0.595	1.10

125C Texture Gradient

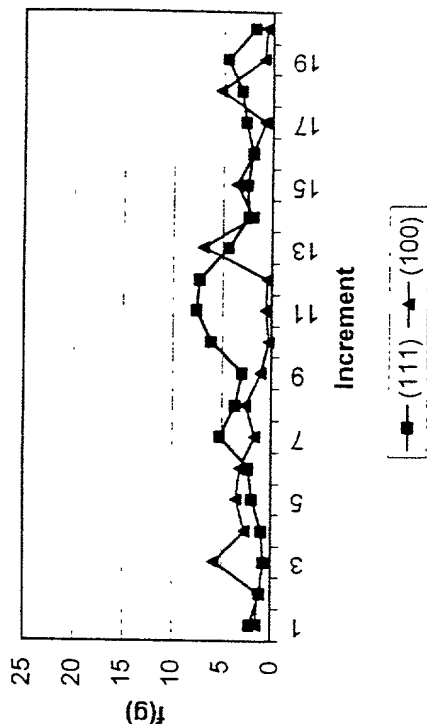


Fig. 7A

125C (111):(100) Ratio Gradient

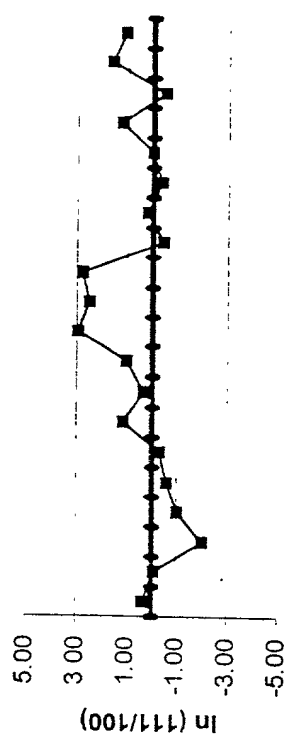


Fig. 7B

# 0.400" FORGING 950A

Billet Anneal: 1050 Preform Anneal: 1050

Finish Anneal 950 Grain Size: 7 1

Increment: 0.020"

Increment	(111)	(100)	ln(ratio)
1	2.127	6.911	-1.18
2	4.289	4.447	-0.04
3	3.421	4.819	-0.34
4	3.065	4.67	-0.42
5	3.879	4.672	-0.19
6	2.33	5.309	-0.82
7	8.206	1.239	1.89
8	9.086	0.57	2.77
9	9.615	0.425	3.12
10	10.558	1.57	1.91
11	12.83	0.883	2.68
12	9.168	2.094	1.48
13	8.395	2.002	1.43
14	11.219	3.961	1.04
15	2.512	3.816	-0.42
16	5.044	4.613	0.09
17	3.898	6.144	-0.46
18	2.297	6.159	-0.99
19	5.796	6.809	-0.16
20	2.799	6.72	-0.88

## 950A Texture Gradient

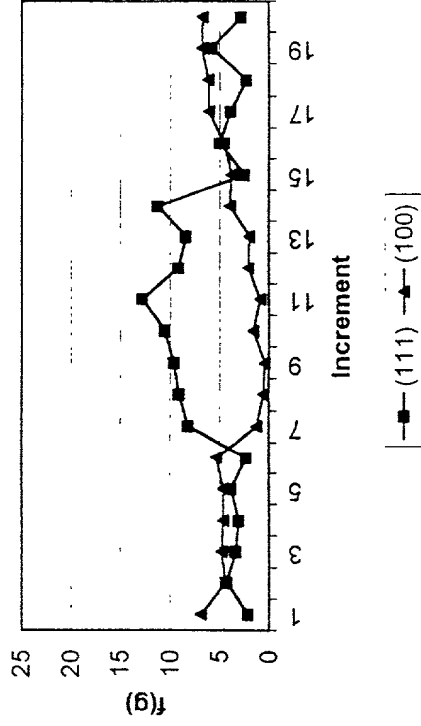


Fig. 8A

## 950A (111):(100) Ratio Gradient

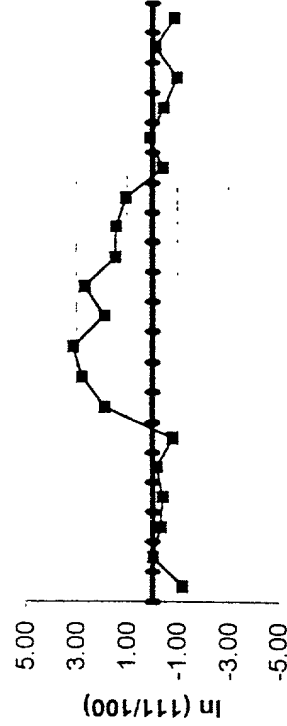


Fig. 8B



# 0.400" FORGING 950B

Billet Anneal: 1050 PreformAnneal: N/A

FinishAnneal 950 Grain Size:

Increment: 0.020"

Increment	(111)	(100)	ln(ratio)
1	8.364	6.765	0.21
2	8.193	6.839	0.18
3	6.576	6.901	-0.05
4	4.947	6.953	-0.34
5	3.246	8.833	-1.00
6	5.807	7.248	-0.22
7	7.812	5.491	0.35
8	9.74	5.358	0.60
9	11.63	3.748	1.13
10	11.544	2.258	1.63
11	11.965	3.086	1.36
12	9.512	6.106	0.44
13	8.558	9.762	-0.13
14	10.727	5.84	0.61
15	6.759	8.025	-0.17
16	6.212	9.528	-0.43
17	3.868	8.796	-0.82
18	6.368	8.333	-0.27
19	6.336	7.45	-0.16
20	4.463	6.201	-0.33

## 950B Texture Gradient

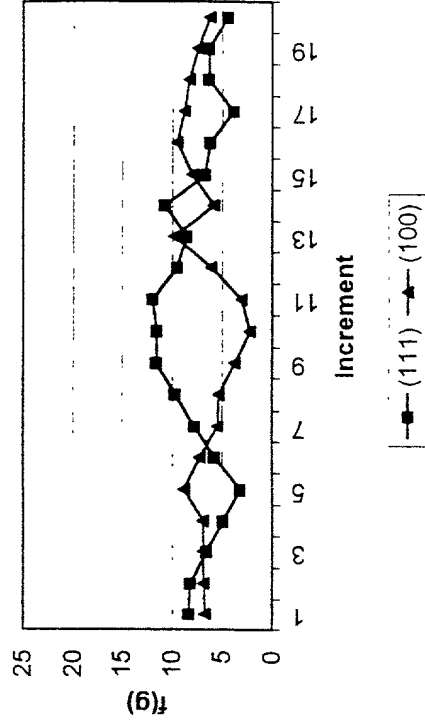


Fig. 9A

## 950B (111):(100) Ratio Gradient

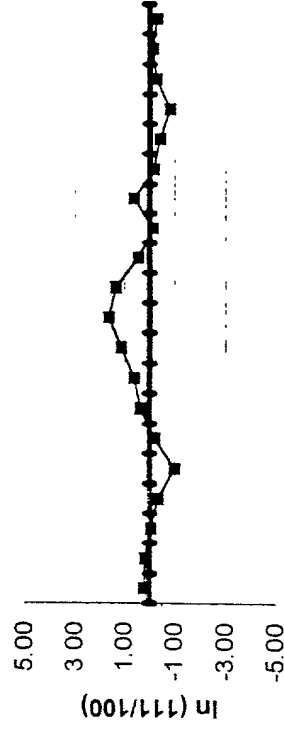


Fig. 9B

0.400" FORGING 950C  
 Billet Anneal: N/A Preform Anneal: 1050  
 Finish Anneal: 950 Grain Size:  
 Increment: 0.020"

Increment	(111)	(100)	ln(ratio)
1	3.589	9.599	-0.98
2	3.214	6.069	-0.64
3	2.869	6.976	-0.89
4	3.991	8.405	-0.74
5	4.737	3.069	0.43
6	7.163	4.567	0.45
7	7.97	2.348	1.22
8	15.184	0.506	3.40
9	18.894	0.058	5.79
10	16.416	0.084	5.28
11	12.528	0.215	4.07
12	13.644	1.074	2.54
13	9.229	1.141	2.09
14	4.285	6.858	-0.47
15	2.067	4.102	-0.69
16	3.938	4.881	-0.21
17	3.391	10.311	-1.11
18	5.302	6.265	-0.17
19	5.755	6.608	-0.14
20	4.701	8.166	-0.55

950C Texture Gradient

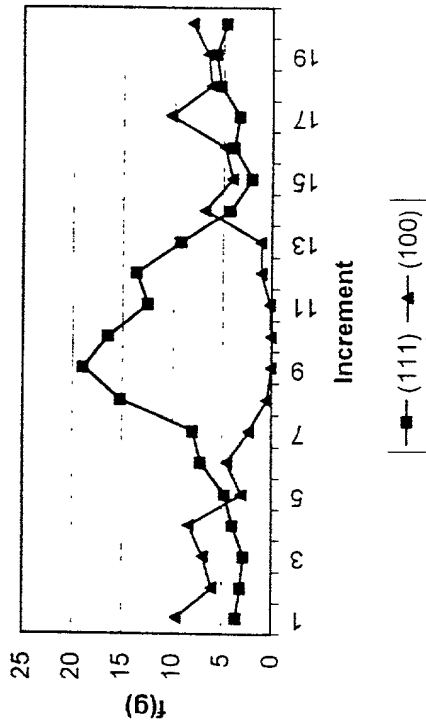


Fig. 10A

950C (111):(100) Ratio Gradient

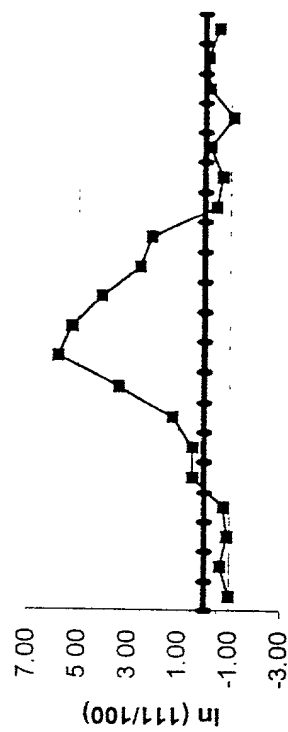


Fig. 10B

# 0.400" FORGING 950D

Billet Anneal: N/A PreformAnneal: N/A

FinishAnneal: 950 Grain Size:

Increment: 0.020"

Increment	(111)	(100)	ln(ratio)
1	1.836	9.65	-1.66
2	4.837	7.584	-0.45
3	5.785	5.354	0.08
4	1.468	10.297	-1.95
5	0.781	17.101	-3.09
6	8.097	9.559	-0.17
7	18.984	1.486	2.55
8	25.471	0.166	5.03
9	31.554	0.053	6.39
10	29.911	0.075	5.99
11	25.476	0.055	6.14
12	21.407	1.494	2.66
13	6.505	2.777	0.85
14	0.065	1.665	-3.24
15	0.052	4.2	-4.39
16	0.528	9.288	-2.87
17	1.122	8.954	-2.08
18	2.67	8.715	-1.18
19	5.137	8.222	-0.47
20	1.453	10.944	-2.02

## 950D Texture Gradient

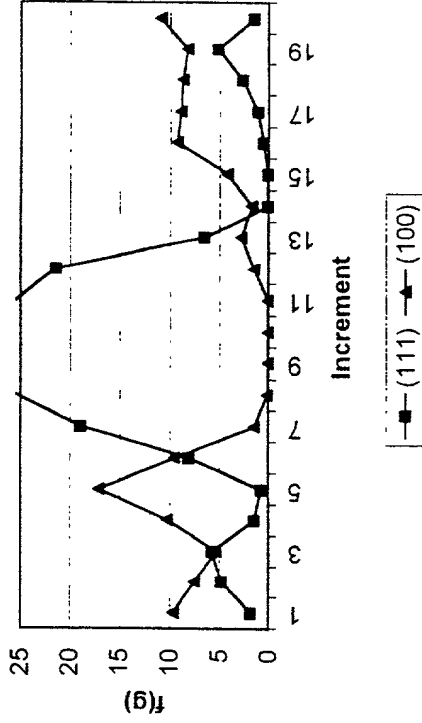


Fig. 11A

## 950D (111):(100) Ratio Gradient

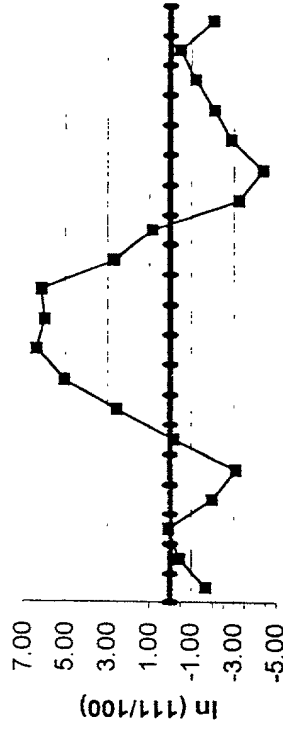


Fig. 11B